Applying Goal Orientation Theory in an Exploration of Student Motivations in the Domain of Educational Leadership

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The purpose of this article is to explore the motivation of graduate students in an educational leadership preparation program. Motivation is a key element for academic and professional success because without it little learning or performance takes place. The goal orientation theory of motivation was examined in the context of the educational leadership domain. To evaluate the psychometric properties of a measure of goal orientations of future educational leaders, a factor analysis was performed and internal consistency calculated. The scale presents good factorial and discriminant validity evidence and fair to good internal consistency evidence. Due to the lack of research regarding the assessment and development of goal orientations in the educational leadership domain, this study provides a basis for further research.

Little research exists on the motivations of graduate students enrolled in an educational leadership graduate program pursuing careers as school leaders (e.g., principals). These graduate students are typically classroom teachers who have voluntarily enrolled in a principal certification program to obtain state credentials required for principalship eligibility. To succeed in acquiring principal certification and subsequent school leadership positions, motivation is a necessity. Motivation is "an internal state that arouses, directs, and maintains behavior" (Woolfolk-Hoy & Hoy, 2006, p. 127). Without motivation, very little learning or performance occurs.

The goal orientation theory of motivation provides a viable framework to study the aims of graduate students in the domain of educational leadership. Goal orientations are defined as "a set of behavioral intentions that determine how students approach and

engage in learning activities" (Meece, Blumenfeld, & Hoyle, 1988, p. 514). Goal orientations can further be described as a set of beliefs students have concerning their goals (i.e., a specific, desired product) that explain why the goal is important to them (Woolfolk-Hoy & Hoy, 2006). For example, if a student wants to obtain an A grade in class, is it because she wants to look better than her classmates do or is it so she can have mastered the course content? Goal orientations explain the why of students' behaviors.

Goal Orientation Dichotomy: Mastery and Performance

Early theorists of goal orientations, such as Ames (1992), dichotomized mastery goal orientation and performance goal orientation. The mastery goal orientation is "a desire to develop competence and increase knowledge and understanding through effortful learning" (Murphy & Alexander, 2000, p. 28). The term mastery goal orientation can be used interchangeably with other concepts in the literature, specifically learning goal orientations (Dweck, 1986; Dweck & Leggett, 1988) and task goal orientations (Nicholls, 1984). On the other hand, the performance goal orientation is "a desire to gain favorable judgments…of one's competence" (Murphy & Alexander, p. 28). The term performance goal orientation is generally synonymous with self-enhancing goal orientation (Skaalvik, 1997) and ego-involved goal orientation (Nicholls). Each of the initially theorized goal orientations was linked to a variety of student characteristics and learning variables.

Generally, the set of learner characteristics associated with the mastery goal orientation were considered positive in relation to student characteristics and performance. Mastery-oriented students tended to place high intrinsic value on learning (Butler, 1987; Covington, 1999) and were inclined to use deep information processing strategies, such as developing multiple examples of concepts (Ames, 1992). They were apt to be self-regulated, using self-monitoring and organizational strategies, as well as adaptive to failures on particular tasks. Mastery-oriented students tended to pursue challenging tasks (Dweck, 1986; Dweck & Leggett, 1988; Elliot & Dweck, 1988). Moreover, they became engaged in chosen tasks, spending a great deal of time on them (Schunk, 1996). The

extensive involvement and time spent on tasks were consistent with the mastery-oriented student's positive attitude toward class (Archer, 1994), interest in class (Church, Elliot, & Gable, 2001; Elliot & Church, 1997; Harackiewicz, Barron, Carter, Lehto, & Elliot, 1997), enjoyment of lectures (Harackiewicz, Barron, Tauer, Carter, & Elliot, 2000; Harackiewicz, Barron, Pintrich, Elliot, & Thrash, 2002), and attributions of success to effort and strategy use (Ames & Archer, 1988). Effort rather than ability is the key to success in the mind of the mastery-oriented student (Dweck & Leggett, 1988). Mastery goal orientations were also positive predictors of academic performance (Bouffard, Boisvert, Vezeau & Larouche, 1995; Church et al., 2001; Elliot & McGregor, 2001). Ames (1992) added that feeling pride and satisfaction with successes was characteristic of mastery-oriented students.

On the other hand, the set of learner characteristics related to performance goals were considered negative because these characteristics were not affiliated with academic success. The primary concern of performance-oriented students was to outperform others (Dweck, 1986; Nicholls, 1984), not to appreciate the intrinsic value learning (Butler, 1987; Covington, 1999). Performance-oriented students attributed successes and failures to fixed ability or task difficulty, rather than malleable effort, which led to seeking outcomes superior to classmates with the exertion of minimal effort (Ames, 1984). This lack of effort resulted in shallow information processing, such as using rote memorization (Meece et al., 1988). Additionally, attributions of failure to task difficulty led to the avoidance of challenging tasks, because the risk of failing or appearing inferior was too high (Dweck, 1986; Dweck & Leggett, 1988; Elliot & Dweck, 1988). In contrast with mastery orientations, a performance orientation was correlated with a negative attitude toward class (Ames & Archer, 1988).

Goal Orientation Trichotomy: Mastery, Performance-Approach, Performance-Avoidance

The initial goal orientation dichotomy developed into a trichotomy. Elliot and Harackiewicz (1996) noted some mixed results concerning the outcomes of mastery and performance goal orientations. In some studies, both orientations showed effort, positive strategy use, and academic success (Ames & Archer, 1988; Bouffard et al., 1995). Elliot and Harackiewicz theorized that these mixed results were found because an approach-avoidance distinction had not been considered. Before the goal orientation theory was created, Atkinson (1957) had presented the concepts of approach and avoidance into the motivation literature, positing that some people sought successes (approach) while others looked to avoid failures (avoidance). Therefore, Elliot, McGregor, and Gable (1999) citing Atkinson's work split the performance goal orientation into performance-approach and performance-avoidance. Performance-approach oriented students looked to gain positive judgments of their competence in relation to other people, whereas performance-avoidance goal oriented students sought to avoid negative judgments of their competence in relation to other people (McCollum, 2004). For example, performance-approach oriented students tried to get better grades than their peers did, whereas performance-avoidance oriented students aspired not to receive lower grades than classmates did. Thus, a trichotomous model of goal orientations was created to include the approach-avoidance distinction. Factor analysis, path analysis, and experimentation led to evidence in support of the trichotomous goal orientation model (Elliot & Church, 1997; Elliot & Harackiewicz, 1996; Elliot, 1999).

Just as mastery and performance goal orientations have been linked to certain student characteristics, performance-approach and performance-avoidance goals have a set of correlates. Students with a performance-avoidance orientation tended to lack intrinsic motivation (Elliot & Harackiewicz, 1996). They were characterized as having low effort and persistence (Elliot et al., 1999) and feelings of incompetence and fear of

failure (Elliot, 1999; Elliot & Church, 1997). Elliot et al. (1999) found performance-avoidance to be positively correlated with surface processing and disorganization, and negatively correlated with Scholastic Assessment Test (SAT) scores, grade point average (GPA), deep processing, and exam performance. On the other hand, with the new approach-avoidance distinction, a performance-approach goal orientation was positively correlated with academic achievement (Barron & Harackiewicz, 2001; Barron, Schwab, & Harackiewicz, 1999; Church et al., 2001; Elliot & Church, 1997; Elliot & McGregor, 1999, 2001; Harackiewicz, 2000, 2002). With the goal orientation trichotomy, it appeared that low achievement was associated with performance-avoidance goal orientations, whereas academic success was frequently correlated with performance-approach goal orientation, and sometimes associated with mastery goal orientations.

The 2 x 2 Goal Orientation Model

The next development in goal orientation theory was the creation of a 2 x 2 model of goal orientations (Elliot, 1999). Just as performance goal orientations were split with the approach-avoidance distinction, mastery goals were divided as well. Elliot (1999) posited that mastery-avoidance goal oriented individuals avoid "self-referential or task-referential incompetence" (p. 181). Mastery-avoidance orientation was contrasted to mastery approach orientation, such that mastery-avoidant individuals attempted to avoid losing competency, skill, and appreciation, rather than attempted to gain it. There is some evidence to suggest the validity and utility of the 2 x 2 model in accounting for variance in academic achievement (e.g., Elliot & McGregor, 2001).

Goal Orientations in the Educational Leadership Domain

Can the described goal orientation theory of motivation be generalized and applied to specific domains of educational learning and work performance? For instance, could this theory be

generalized and applied to an educational leadership preparation program and carry on to the student's future work performance as a campus principal? For example, does a performance-approach orientation in statistics classes, translate into having the same orientation in educational leadership classes? Will a mastery-approach oriented educational leadership student, be a mastery-approach oriented principal? If the answer to these questions is yes, then the goal orientation constructs are domain generalizable—one's orientation in one area of learning or work performance would be the same in another area of learning or work performance. If the answer to these questions is no, then one could be performance-oriented in statistics and mastery-oriented in educational leadership.

Although scarce evidence on the topic exists, Stodolsky, Salk, and Glessner (1991) point to differences in student perceptions based on differences in domains. Students' views of the classroom shift because of the subject matter being taught. That is, the content domain plays a role in determining students' affect, cognitions, and behavior, thus the domain may alter students' goal orientations. Furthermore, there is indication that goal orientations apply to work performance (Porath & Bateman, 2006), not only to instructional performance in the classroom. Bong (2001) found that performance-approach and performance-avoidance goals tend to translate across domains. There was a tendency for people who were performance-approach or performance-avoidance to remain that way in various areas of learning and performance. In contrast, mastery-approach goal orientations tended to change across domains. Thus, when a student is performance-approach or performance-avoidance oriented, she may hold the same orientation as a professional; this may not be so for the mastery-approach oriented person. This point is particularly noteworthy for educational leadership students who tend to be older students who hold mastery-approach orientations (Eppler & Harju, 1997).

Purpose for Present Research

The purpose for the present research is to identify the validity and internal consistency of a modified version of the Elliot and McGregor (2001) 2 x 2 goal orientation measure, which was an extension of an instrument created by Elliot and Church (1997) to measure the goal orientation trichotomy. The Elliot and McGregor measure was worded to address younger students studying science. The modified measure created in the present study was designed to measure the 2 x 2 goal orientations (i.e., mastery-approach, mastery-avoidance, performance-approach, performance-avoidance) in the domain of educational leadership. It is hypothesized that through factor analysis these four goal orientations will be identified in this scale placing them in the educational leadership domain. Using correlations, the discriminant validity of the subscales will be sought, and Cronbach's Alpha will be calculated to provide evidence of internal consistency. Descriptive statistics for each of the four subscales will be presented with the expectation that the older educational leadership students will be primarily mastery-approach oriented, consistent with the research of Eppler and Harju (1997). No prior investigation on the measurement of goal orientations in the area of educational leadership has been found in the literature. Therefore, this study can serve as a major contribution to the advancement of research on the measurement of the goal orientation theory of motivation in educational leadership development.

Method

Participants

There were 310 participants, all of whom were graduate students in an educational leadership program in a mid-sized university located in the southwest region of the United States. There were 222 women and 88 men in the sample. The mean age was 34.12 (SD = 7.13). The sample was 51.6% Caucasian, 25.2% Hispanic, 20.9% African American, 1.3% Asian, and 1.0% other. The mean teaching experience was 7.42 years (SD = 4.92). The

mean experience as a school administrator was 1.94 months (SD = .43).

Materials

The materials used in this study consisted of an instrument intended to measure 2 x 2 goal orientations in the domain of educational leadership. The original items were created by Elliot and McGregor (2001) as an extension of the scale written by Elliot and Church (1997). We reworded the items on the Elliot and McGregor instrument to address the educational leadership domain. The exact wording of the items on the modified instrument can be found in the Results (factor analysis) section of this article. Items were rated on a 7-point summated rating scale with participants indicating how true each statement was about them: 1 = not at all true of me and 7 = completely true of me.

Procedures

The instrument was administered to the sample in groups of approximately 30 students each. Participants first gave their informed consent, and then completed the instrument through a paper and pencil administration.

Results

A Maximum Likelihood factor analysis was performed with a Promax rotation. Based on the eigenvalue greater than 1 criterion, 4 factors were extracted. These four factors accounted for 70.22% of the variance in the scale's items. Factor 1 accounted for 29.02% of the variance. Factor 2 accounted for 16.01% of the variance. Factor 3 accounted for 14.16% of the variance. Factor 4 accounted for 11.03% of the variance. Factor 1 is clearly the Mastery Avoidance factor. Factor 2 is the Performance Approach factor. Factor 3 is the Performance Avoidance factor. Factor 4 is the Mastery Approach factor. The factor analysis is shown in Table 1. All factor loadings less than .4 are suppressed, as these are non-significant loadings (see Hair, Anderson, & Tatham, 1987).

Table 1. Factor Analysis

Item	F1	F2	F3	F4
10. I am often concerned that I may not learn all that there is to learn in my educational leadership classes.	**.91**			
2. I worry that I may not learn all that I possibly could in my educational leadership classes.	**.88**			
6. Sometimes I'm afraid that I may not understand the content of my educational leadership classes as thoroughly as I'd like.	**.77**			
1. It is important for me to do better than other students in my educational leadership classes.		**.90**		
5. It is important for me to do well compared to other students in my educational leadership classes.		**.88**		
9. My goal in my educational leadership classes is to get a better grade than most of the other students.		**.84**		
8. My goal in my educational leadership classes is to avoid performing poorly.			**.92**	
4. I just want to avoid doing poorly in my educational leadership classes.			**.84**	
12. My fear of performing poorly in my educational leadership classes is often what motivates me.			**.42**	
3. I want to learn as much as possible from my educational leadership classes.				**.84**
7. It is important for me to understand the content of my educational leadership courses as thoroughly as possible.				**.82**
11. I desire to completely master the material presented in my educational leadership classes.				**.62**

Table 2 shows the correlations between the factors, the means, standard deviations and (Cronbach's Alpha) of each subscale.

Table 2. Correlation, Descriptive Statistics, and (Cronbach's Alpha)

Factor	*M*	*SD*	1	2	3	4
1. MAv	**4.00**	**1.72**	**(.82)**	**.19****	**.17****	**.22****
2. PAp	**4.37**	**1.65**	**-**	**(.85)**	**.14****	**.40****
3. PAv	**4.20**	**1.75**	**-**	**-**	**(.71)**	**.07**
4. MAp	**6.50**	**.64**	**-**	**-**	**-**	**(.66)**

Note. MAv = mastery avoidance, PAp = performance approach, PAv = performance avoidance, MAp = mastery approach.

The results indicated that the correlations are generally quite low. This suggests that the factors are distinct. The highest correlations are between Performance Approach and Mastery Approach, which suggests shared variability between these factors. Still the r = .40 is still low enough to warrant the conclusion that all factors are separate. Hence, discriminant validity evidence exists. The Cronbach's Alphas can be described as ranging from fair (.66) to good (.85), making the instrument usable for further research. The subscale with the highest mean in this sample of educational leadership students was the mastery-approach orientation (M = 6.50, SD = .64) with mastery avoidance orientation having the lowest mean (M = 4.00, SD = 1.72).

Discussion

The results offer factorial and discriminant validity for the instrument, as well as internal consistency evidence. The motivational theory of goal orientations appears to transfer well into the educational leadership domain. These results suggest that the measure can serve as a valuable research tool in studying the motivation of graduate students who are participating in educational leadership programs, preparing for careers as school administrators (e.g., principals). Research results suggest that older graduate students, such as those often found in school leadership preparation programs, are more likely to be mastery-approach oriented, thus they are likely to possess desirable characteristics,

like exerting effort and achieving success, which could help develop their school administrator efficacy (see McCollum, Kajs, & Minter, 2006).

The instrument can have multiple valuable applications in an educational leadership preparation program. It can allow graduate students to identify and better understand the specific goal orientations they possess, including the various academic and professional consequences of these orientations. University personnel can use the measure to gauge educational leadership students' types and levels of goal orientations to better comprehend their motivations, and when possible and necessary, reinforce goal orientations that will help them to become more efficacious and academically successful.

The instrument is already being used with educational leadership students in the Collaborative Bilingual Administrator Training (CBAT) program at the University of Houston-Clear Lake (UHCL). The CBAT program at UHCL is a five-year federally funded grant project. The primary purpose of the CBAT project is to prepare certified bilingual school administrators to work in schools with high populations of English language learners. A set of measurement instruments both original and revised was developed to research the motivational characteristics (e.g., school administrator efficacy and educational leadership goal orientations) of these educational administration students.

Considering the multiple values of the measurement instrument in the educational leadership domain, further research with this instrument should address the influence of context and culture on goal orientations as well as the translation of goal orientations from university preparation to workplace assignment. In addition, relationships to academic outcomes such as percepts of efficacy and GPA should be studied. In closing, because no prior research on the assessment and development of educational leadership goal orientations can be found, the measure can serve as a valuable resource and basis of information in studying the motivation of graduate students in school leadership preparation programs.

References

Ames, C. (1992). Classrooms: Goals, structures, and student motivation. Journal of Educational *Psychology, 84,* 261-271.

Ames, C., & Archer, J. (1988). Achievement goals in the classroom: Students' learning strategies and motivation processes. *Journal of Educational Psychology, 80*(3), 260-267.

Archer, J. (1994). Achievement goals as a measure of motivation in university students. *Contemporary Educational Psychology, 19,* 430-446.

Atkinson, J. W. (1957) Motivational determinants of risk-taking behavior. *Psychological Review, 64,* 359-372.

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice Hall.

Barron, K. E., & Harackiewicz, J. M. (2001). Achievement goals and optimal motivation: Testing multiple goal models. *Journal of Personality and Social Psychology, 80,* 706-722.

Barron, K. E., Schwab, C., & Harackiewicz, J. M. (1999, May). Achievement goals and classroom context: A comparison of different learning environments. Paper presented at the meeting of the Midwestern Psychological Association, Chicago, IL.

Bong, M. (2001). Between- and within-domain relations of academic motivation among middle and high school students: Self-efficacy, task-value, and achievement goals. *Journal of Educational Psychology, 93,* 23-34.

Bouffard, T., Boisvert, J., Vezeau, C., & Larouche, C. (1995). The impact of goal orientation on self-regulation and performance among college students. *British Journal of Educational Psychology, 65,* 317-329.

Butler, R. (1987). Task-involving and ego-involving properties of evaluation: Effects of different feedback conditions on motivational perceptions, interest, and performance. *Journal of Educational Psychology, 79,* 474-482.

Church, M. A. Elliot, A. J., & Gable, S. L. (2001). Perceptions of classroom environment, achievement goals, and achievement outcomes. *Journal of Educational Psychology, 93,* 43-54.

Covington, M. (1999). Caring about learning: The nature and nurturing of subject matter appreciation. *Educational Psychologist, 34,* 127-136.

Dweck, C. S. (1986). Motivational processes affecting learning. *American Psychologist, 41,* 1040-48.

Dweck, C. S., & Leggett, E. L. (1988). A social-cognitive approach to motivation and personality. *Psychological Review, 95,* 256-273.

Elliot, A. J. (1999). Approach and avoidance motivation and achievement goals. *Educational Psychologist, 34*(3), 169-189.

Elliot, A. J., & Church, M. A. (1997). A hierarchical model of approach and avoidance achievement motivation. *Journal of Personality & Social Psychology, 72*(1), 218-232.

Elliot, A. J., & Harackiewicz, J. M. (1996). Approach and avoidance achievement goals and intrinsic motivation: A mediational analysis. *Journal of Personality and Social Psychology, 70,* 461-475.

Elliot, A. J., & McGregor, H. A. (1999). Test anxiety and the hierarchical model of approach and avoidance achievement motivation. *Journal of Personality and Social Psychology, 76,* 549-563.

Elliot, A. J. & McGregor, H. A. (2001). A 2 x 2 achievement goal framework. *Journal of Personality and Social Psychology, 80,* 501-519.

Elliot, A. J., McGregor, H. A., & Gable, S. (1999). Achievement goals, study strategies, and exam performance: A mediational analysis. *Journal of Educational Psychology, 91*(3), 549-563.

Elliot, E. S., & Dweck, C. S. (1988). Goals: An approach to motivation and achievement. *Journal of Personality and Social Psychology, 54,* 5-12.

Eppler, M. A., & Harju, B. L. (1997). Achievement motivation goals in relation to academic performance in traditional and nontraditional college students. *Research in Higher Education, 38,* 557-573.

Hair, J. F, Jr., Anderson, R. E, & Tatham, R. L. (1987). *Multivariate data analysis with readings (*2nd ed.). New York: Macmillan.

Harackiewicz, J. M., Barron, K. E., Carter, S. M., Lehto, A. T., & Elliot, A. J. (1997). Determinants and consequences of achievement goals in the college classroom: Maintaining interest and making the grade. *Journal of Personality and Social Psychology, 73,* 1284-1295.

Harackiewicz, J. M., Barron, K. E., Tauer, J. M., Carter, S. M., & Elliot, A. J. (2000). Short-term and long-term consequences of achievement goals in college: Predicting continued interest and performance over time. *Journal of Educational Psychology, 92,* 316-330.

Harackiewicz, J. M, Barron, K. E., Pintrich, P. R., Elliot, A. J., & Thrash, T. M. (2002). Revision of achievement goal theory: Necessary

and illuminating. *Journal of Educational Psychology, 94*(3), 638-645.

McCollum, D. L. (2004). Development of integrated taxonomy of social goals (Doctoral dissertation, Penn State, 2004). Dissertation Abstracts International 65(9-A), 3279.

McCollum, D. L., Kajs, L. T., & Minter, N. (2006). School administrators' efficacy: A model and measure. *Education Leadership Review, 7*(1), 42-48.

Meece, J. L., Blumenfeld, P. C., & Hoyle, R. H. (1988). Students' goal orientations and cognitive engagement in classroom activities. *Journal of Educational Psychology, 80*, 514-523.

Murphy, K. P., & Alexander, P. (2000). A motivated exploration of motivation terminology. *Contemporary Educational Psychology, 25*, 3-53.

Nicholls, J. G. (1984). Achievement motivation: Conceptions of ability, subjective experience, task choice, and performance. *Psychological Review, 91*(3), 328-346.

Porath, C. L. & Bateman, T. S. (2006). Self-regulation: From goal orientation to job performance. *Journal of Applied Psychology, 91*, 185-192.

Schunk, D. H. (1996). Goal and self-evaluative influences during children's cognitive skill learning. *American Educational Research Journal, 33*, 359-382.

Skaalvik, E. (1997). Self-enhancing and self-defeating ego orientations: relations with task and avoidance orientation, achievement, self-perceptions, and anxiety. *Journal of Educational Psychology, 89*, 71-81.

Stodolsky, S. S., Salk, S., & Glaessner, B. (1991). Student views about learning math and social studies. *American Educational Research Journal, 28*, 89-116.

Woolfolk Hoy, A., & Hoy, W. K. (2006). *Instructional leadership: A research-based guide to learning in schools* (2nd ed.). Boston: Allyn & Bacon/Longman.